Control Number: 51840

Item Number: 24

Addendum StartPage: 0

PROJECT NO. 51840 2021 JUN 23 PM 2:53

RULEMAKING TO ESTABLISH ELECTRIC	**§**	**PUBLIC UTILITY COMMISSION**
	§	
WEATHERIZATION STANDARDS	**§**	**OF TEXAS**

THE ADVANCED POWER ALLIANCE AND AMERICAN CLEAN POWER ASSOCATION COMMENTS

The Advanced Power Alliance and the American Clean Power Association submit the following response to the request for comments on questions issued by the Public Utility Commission of Texas (Commission) in Project 51840: *Rulemaking to Establish Electric Weatherization Standards*.

INTRODUCTION

The Advanced Power Alliance (APA) and the American Clean Power Association (ACP) appreciate the opportunity to respond to Staff's question related to weatherization standards for electric generation. Improving reliability in the Electric Reliability Council of Texas (ERCOT) Power Region is of the utmost importance in preventing significant load shed events and ensuring adequate supplies of available power for Texas consumers. Winter Storm Uri brought extremely frigid, icy, and snowy weather with freezing temperatures impacting every county in Texas for extended periods of time, leading to an unprecedented demand for electricity and widespread generator outages. While the events in February reminded us of the threats posed by arctic weather, we are long familiar with the challenges presented by extraordinarily hot Texas summer operating conditions.

24

Texas generators seek to operate reliably in any extreme scenario, and we welcome this public discussion as the Commission seeks to enhance these capabilities. The members of APA and ACP strongly support the continued success of the ERCOT market and believe that the development of weather emergency preparedness requirements, as mandated by the passage of Senate Bill 3 during the 87th Texas Legislature, will help foster a more resilient grid.

RESPONSE TO QUESTION NUMBER 1

Question 1: To fulfill the requirements of Texas Utilities Code § 35.0021(b), under what weather emergency conditions should the Commission require a provider of electric generation service in the Electric Reliability Council of Texas (ERCOT) power region to be able to operate its generation facilities? At a minimum, please address standards for temperature, icing, wind, flooding, and drought conditions. For each, please address whether the standard should vary by region or by type of generation facility. Please provide any relevant support for your recommendations, including existing or proposed standards in other jurisdictions or related studies."

The Texas Utilities Code § 35.0021(b) requires the Commission to "implement measures to prepare the provider's generation assets to provide adequate electric generation service during a weather emergency according to reliability standards adopted by the Commission." APA and ACP member companies believe this rulemaking to implement weather emergency standards will help deliver improved reliability in the ERCOT Power Region during extreme weather events and in averting significant load shed events like those that occurred during Winter Storm Uri.

The United States Energy Policy Act of 2005 (Public Law 109-58-AUG. 8, 2005) contains a provision authorizing the Federal Energy Regulatory Commission (FERC) to certify a national Electric Reliability Organization (ERO) to enforce mandatory reliability standards for the bulk-power system (BPS). The North American Electric Reliability Corporation (NERC) was granted the designation of the ERO by FERC in April of 2006.

NERC has jurisdiction over owners and operators of facilities that are part of the bulk power system and is responsible for the development and enforcement of mandatory Reliability Standards. NERC Reliability Standards define the reliability requirements for planning and operating the bulk power system throughout North America, including ERCOT.

In June of 2021, the NERC Board of Trustees unanimously approved new Reliability Standards that require Generator Owners and Generation Operators to protect their generation units against freezing by requiring a baseline level of cold weather planning and preparation. The new standards are aimed at enhancing the reliability of the bulk electric system during cold weather events by ensuring Generator Owners, Generator Operators, Transmission Operators, Reliability Coordinators, and Balancing Authorities prepare for extreme cold weather conditions. The final step in the process of adopting these new standards is approval by FERC, which is anticipated during the second half of 2021.

Extreme weather can simultaneously affect generation and demand thereby causing power delivery shortages that lead to energy emergencies. The newly approved NERC Reliability Standards promote the reliability of the bulk electric system during cold weather with the goal of maximizing generating unit availability. The standards take into consideration

necessary activities such as winterization of generating units, winter-specific and plant-specific operator awareness training, and a process to ensure situational awareness for the registered functions.

The three updated NERC Reliability Standards include *EOP-011-2*: *"Emergency preparedness and operations"*, *IRO-010-4*: *"Reliability coordinator data specification and collection"* and *TOP-003-5*: *"Operational reliability data"*. A high-level overview of the standards as they relate to generation owners and operators is provided below.

One of the provisions of EOP-011-2: "*Emergency preparedness and operations"*, requires Generation Owners and Generation Operators to implement and maintain one or more cold weather preparedness plan(s) for its generating units. The cold weather preparedness for generating units must include generating unit(s) freeze protection measures to protect units from freezing "based on geographical location and plant configuration."

The cold weather preparedness plan(s) must include annual inspection and maintenance of generating unit(s) freeze protection measures, operational limits in cold weather, minimum design temperature, documentation that its cold weather plan was implemented and documented unit-specific training for maintenance and operating personnel.

Another provision of EOP-011-2 requires Generation Owners and Generation Operators to keep data or evidence documenting its cold weather preparedness plan(s) for a specified period of time to demonstrate compliance with weatherization plans as defined in the NERC Rules of Procedure under the Compliance Monitoring and Enforcement Program.

Provisions of IRO-010-4: *"Reliability coordinator data specification and collection"* and

TOP-003-5: *"Operational reliability data"* require reliability coordinators, transmission operators and balancing authorities to include in their data specifications provisions for reporting the cold weather information identified by the Generation Owner and Generation Operators in the cold weather plan.

The newly adopted NERC Reliability Standards will provide a reliable regulatory framework for weatherization standards that will meet the objectives of SB 3 while still promoting flexibility of all resources in the ERCOT market to develop unit redundancy measures. By definition, renewable generation resources rely on exposure to environmental elements to produce power. Wind turbines and solar panels simply cannot be housed in structures to protect them from environmental elements because they rely on exposure to the wind and the sun to generate power. They are designed and constructed to reliably operate in a wide range of weather conditions and owners are incentivized to maximize production.

Operating characteristics of renewable generation equipment vary from one manufacturer to another and from geographic region-to-region within Texas. Generation asset owners have little to no ability to change capabilities, specifications, or characteristics without voiding Original Equipment Manufacturer (OEM) warranties. Therefore, it is important that weatherization standards adopted do not impose an obligation to alter facilities in a manner that would void OEM warranties or force equipment to be operated under conditions that exceed design criteria or degrade unit performance as doing so could negatively impact generation availability, contrary to the Commission's goals.

In proposing and implementing final rules in this project, the Commission should focus on ensuring that generator owners and generator operators operate each asset suitably for its environment, and the Commission should only require specific operating parameters to the extent that those parameters are consistent with industry standard, commercially available technologies.

The Commission should ensure that generating equipment offer a reasonable—but not absolute—tolerance for extreme events. Operating facilities outside of the OEM design criteria would likely increase the risk of catastrophic equipment failure, which would run counter to the reliability objectives of SB 3. It is important that any weatherization standards adopted by the Commission allow generator owners and generator operators to maintain applicable warranty coverage and to comply with OEM ratings including for temperature, icing, wind speeds, and other operating conditions. While OEMs continue to study and evaluate various systems and coatings to combat the most serious of cold weather conditions, operators should only be required to implement technologies which are commercially feasible in Texas.

CONCLUSION

The Advanced Power Alliance and American Clean Power Association believes the newly adopted NERC Reliability Standards will provide a responsible regulatory framework for weatherization of the ERCOT Grid during cold weather to maximize generating unit availability. Collectively, APA and ACP member companies have invested more than $70 billion in the

ERCOT market and we strongly support the Commission's weather emergency preparedness objectives and the development of standards.

It is important that any weatherization standards adopted mandate only commercially viable technology with a proven track record of performance and reliability that do not void OEM warranties, are climate appropriate for Texas, are geographically appropriate within Texas, do not substantially degrade unit performance, and do not result in extended down time for the Texas fleet. We appreciate the opportunity to provide comments in this project and look forward to continuing to work with the Commission and Staff as this rulemaking progresses.

Respectfully submitted,

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